

Listing of the Claims:

Claim 1 (Canceled).

Claim 2 (Currently Amended): The anti-howling circuit of claim [1] 8, further comprising an attenuating circuit for attenuating the residual signal when howling is detected.

Claim 3 (Currently Amended): The anti-howling circuit of claim [[1]] 8, further comprising an initializing circuit for initializing the tap coefficients when howling is detected.

Claims 4-7 (Canceled).

Claim 8 (Currently Amended): An anti-howling circuit for use in an environment having a first transducer for converting a received signal to acoustic output, a second transducer for converting acoustic input to an outgoing signal, and an adaptive echo canceler for generating a predicted echo signal from the received signal by multiplying samples of the received signal by respective tap coefficients, subtracting the predicted echo signal from the outgoing signal to generate a residual signal, and adaptively updating the tap coefficients. ~~The anti-howling circuit of claim 7 comprising:~~

a first envelope detector for detecting a first envelope of the outgoing signal;
a second envelope detector for detecting a second envelope of the residual signal;
an echo loss calculator for calculating echo attenuation on an echo path from the

received signal to the outgoing signal; and

a decision circuit for comparing the first envelope with the second envelope,
thereby detecting howling, wherein the decision unit detects howling when the second envelope exceeds the first envelope by a threshold ratio that depends on the calculated echo attenuation on the echo path.

Claim 9 (Currently Amended): The anti-howling circuit of claim 8, wherein the threshold ratio increases as the calculated echo attenuation increases.

Claim 10 (Currently Amended): An anti-howling circuit for use in an environment having a first transducer for converting a received signal to acoustic output, a second transducer for converting acoustic input to an outgoing signal, and an adaptive echo canceler for generating a predicted echo signal from the received signal by multiplying samples of the received signal by respective tap coefficients, subtracting the predicted echo signal from the outgoing signal to generate a residual signal, and adaptively updating the tap coefficients, ~~The anti-howling circuit of claim 1,~~ comprising:

a first envelope detector for detecting a first envelope of the received signal;

a second envelope detector for detecting a second envelope of the residual signal;

and

a decision circuit for comparing the first envelope with the second envelope,
thereby detecting howling.

Claim 11 (Original): The anti-howling circuit of claim 10, wherein the first envelope and the second envelope are power envelopes.

Claim 12 (Original): The anti-howling circuit of claim 10, wherein the decision unit detects howling when the second envelope exceeds the first envelope by at least a predetermined ratio.

Claims 13-15 (Canceled).

Claim 16 (Currently Amended): A method of detecting howling in an environment having a first transducer for converting a received signal to acoustic output, a second transducer for converting acoustic input to an outgoing signal, and an adaptive echo canceler for generating a predicted echo signal from the received signal by multiplying samples of the received signal by respective tap coefficients, subtracting the predicted echo signal from the outgoing signal to generate a residual signal, and adaptively updating the tap coefficients, comprising: ~~The method of claim 13, wherein the effect of the predicted echo signal is detected by:~~

- detecting a first envelope of the received signal;
- detecting a second envelope of the residual signal; and
- comparing the first envelope with the second envelope.

Claim 17 (Currently Amended): A method of detecting howling in an environment having a first transducer for converting a received signal to acoustic output, a second transducer for converting acoustic input to an outgoing signal, and an adaptive echo

canceler for generating a predicted echo signal from the received signal by multiplying samples of the received signal by respective tap coefficients, subtracting the predicted echo signal from the outgoing signal to generate a residual signal, and adaptively updating the tap coefficients, the method including detecting an effect of the predicted echo signal, the The method of claim 13, further including:

detecting an echo attenuation on an echo path from the received signal to the outgoing signal; and

altering a condition for detection of howling according to the detected echo attenuation, the condition becoming more stringent as the detected echo attenuation increases.

Claim 18 (New): The method of claim 17, further including:

detecting a first envelope of the outgoing signal;

detecting a second envelope of the residual signal; and

comparing the first envelope with the second envelope.

Claim 19 (New): The method of claim 18, further including detecting howling when the second envelope exceeds the first envelope by a threshold ratio that depends on the detected echo attenuation.

Claim 20 (New): The method of claim 19, wherein the threshold ratio increases as the detected echo attenuation increases.

Claim 21 (New): The method of claim 17, further including attenuating the residual signal when howling is detected.

Claim 22 (New): The method of claim 17, further comprising an initializing circuit for initializing the tap coefficients when howling is detected.

Claim 23 (New): The method of claim 16, further comprising attenuating the residual signal when howling is detected.

Claim 24 (New): The method of claim 16, further comprising initializing the tap coefficients when howling is detected.

Claim 25 (New): The anti-howling circuit of claim 10, further comprising an attenuating circuit for attenuating the residual signal when howling is detected.

Claim 26 (New): The anti-howling circuit of claim 10, further comprising an initializing circuit for initializing the tap coefficients when howling is detected.